

ABSTRACT

An air conditioner having in a refrigeration cycle a fixed displacement-type first compression mechanism and a variable displacement-type second compression mechanism independent from each other, and also having second compression mechanism displacement control means, compression mechanism operation switching control means, an evaporator for refrigerant, a condenser, a blower, evaporator temperature detection means, and evaporator target temperature calculation means. The evaporator target temperature calculation means has first compression mechanism evaporator target temperature calculation means for calculating a target temperature for the first compression mechanism and second compression mechanism evaporator target temperature calculation means for calculating a target temperature for the second compression mechanism. When the refrigeration cycle is being operated by both compression mechanisms, the displacement of the second compression mechanism is controlled by the second compression mechanism displacement control means by referring to an evaporator temperature detected by the evaporator temperature detection means and a second compression mechanism evaporator target temperature. The air conditioner can achieve required cooling performance as equal as conventional air conditioners can do, and variations of blown air temperature, room temperature, etc. can be suppressed by controlling cooling performance finely.